

Application No.: 09/960,487

Amendment Dated:

Reply to Office Action of: May 21, 2003

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A welding wire, comprising:

a wire having a wire surface; and

a deposit on the wire surface,

wherein the deposit comprises

at least one lubricating particle, and

at least one compound selected from the group consisting of (a) saturated or unsaturated, linear or branched, carboxylic acid having from 5 to 12 carbon atoms; (b) saturated or unsaturated, linear or branched, metal carboxylate having from 5 to 12 carbon atoms, and mixtures of (a) and (b);

wherein a total amount of said carboxylic acid (a), said metal carboxylate (b) or said mixture of (a) and (b) is 0.001 to 2 g per 10 kg of the wire;

and wherein the at least one lubricating particle comprises a material selected from the group consisting of molybdenum disulfide, tungsten disulfide, graphite carbon and polytetrafluoroethylene.

[2. (Canceled)]

3. (Previously Presented) The welding wire according to Claim 1, wherein the at least one compound is a carboxylic acid selected from the group consisting of pentanoic acid,

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caproic acid, caprylic acid, octylic acid, secanoic acid, capric acid, decanoic acid, lauric acid, linderic acid and synthetic fatty acids.

4. (Previously Presented) The welding wire according to Claim 1, wherein the compound is a metal carboxylate that is a metal salt of a carboxylic acid selected from the group consisting of pentanoic acid, caproic acid, caprylic acid, octylic acid, secanoic acid, capric acid, decanoic acid, lauric acid, linderic acid and synthetic fatty acids; and the metal salt comprises a metal selected from the group consisting of Li, Na, Mg, Al, K, Ca, Ti, Cr, Mn, Fe, Co, Ni, Cu, Zn, Zr, Sn, Cs, Pb and Ce.

5. (Canceled)]

6. (Canceled)]

7. (Canceled)]

8. (Canceled)]

9. (Previously Presented) The welding wire according to Claim 1, wherein the deposit further comprises at least one lubricating oil selected from the group consisting of animal and plant oils, mineral oils, and synthetic oils.

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10. (Previously Presented) The welding wire according to Claim 9, wherein the at least one compound and at least one lubricating particle are present on the wire surface in a total amount of 0.1 to 5 g per 10 kg of the wire.

11. (Canceled)

12. (Previously Presented) The welding wire according to Claim 1, wherein the at least one compound and the at least one lubricating particle are present on the wire surface in a total amount of 0.1 to 5 g per 10 kg of the wire.

13. (Previously Presented) A method of making welding wire of Claim 1, the method comprising:

coating the wire with the deposit.

14. (Previously Presented) The welding wire according to Claim 9, wherein the at least one compound is (a) the carboxylic acid, and wherein the carboxylic acid and the at least one lubricating particle are present on the wire surface in a total amount of 0.1 to 5 g per 10 kg of the wire.

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15. (Previously Presented) The welding wire according to Claim 1, wherein the at least one compound is the (b) metal carboxylate, and wherein the metal carboxylate and the at least one lubricating particle are present on the wire surface in a total amount of 0.1 to 5 g per 10 kg of the wire.

16. (Previously Presented) The welding wire according to Claim 1, wherein the at least one compound is (b) the metal carboxylate having a metal selected from the group consisting of Li, Na, Mg, Al, K, Ca, Ti, Cr, Mn, Fe, Co, Ni, Cu, Zn, Zr, Sn, Cs, Pb and Ce.

17. (Previously Presented) The welding wire according to Claim 1, wherein the at least one lubricating particle is molybdenum disulfide.

18. (Previously Presented) The welding wire according to Claim 1, wherein the at least one lubricating particle is tungsten disulfide.

19. (Previously Presented) The welding wire according to Claim 1, wherein the at least one lubricating particle is graphite carbon.

20. (Previously Presented) The welding wire according to Claim 1, wherein the at

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least one lubricating particle is polytetrafluoroethylene.

21. (Previously Presented) The welding wire according to Claim 1, wherein the at least one compound is a mixture of (a) and (b);
wherein (a) is a carboxylic acid selected from the group consisting of pentanoic acid, caproic acid, caprylic acid, octylic acid, secanoic acid, capric acid, decanoic acid, lauric acid, linderic acid and synthetic fatty acids; and
wherein (b) is a metal carboxylate that is a metal salt of a carboxylic acid selected from the group consisting of pentanoic acid, caproic acid, caprylic acid, octylic acid, secanoic acid, capric acid, decanoic acid, lauric acid, linderic acid and synthetic fatty acids.

22. (Previously Presented) The welding wire according to Claim 1, wherein (b) is a metal carboxylate, and the metal is selected from the group consisting of Mg, Al, Ti, Cr, Mn, Fe, Co, Ni, Cu, Zn, Zr, Sn, Pb and Ce.

23. (Previously Presented) The welding wire according to Claim 1, wherein the at least one compound is (a) the carboxylic acid.

24. (New) A welding wire, comprising:

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a wire having a wire surface; and

a deposit on the wire surface,

wherein the deposit comprises

at least one lubricating particle, and

at least one carboxylic acid selected from the group consisting of pentanoic acid, caproic acid, caprylic acid, octylic acid, secanoic acid, capric acid, decanoic acid, lauric acid, linderic acid and synthetic fatty acids;

and wherein the at least one lubricating particle comprises a material selected from the group consisting of molybdenum disulfide, tungsten disulfide, graphite carbon and polytetrafluoroethylene.

25. (New) A welding wire, comprising:

a wire having a wire surface; and

a deposit on the wire surface,

wherein the deposit comprises

at least one lubricating particle, and

at least one compound selected from the group consisting of (a) saturated or unsaturated, linear or branched, carboxylic acid having from 5 to 12 carbon atoms; (b) a metal carboxylate, and the metal is selected from the group consisting of Mg, Al, Ti, Cr, Mn, Fe,

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Co, Ni, Cu, Zn, Zr, Sn, Pb and Ce, and mixtures of (a) and (b);

and wherein the at least one lubricating particle comprises a material selected from the group consisting of molybdenum disulfide, tungsten disulfide, graphite carbon and polytetrafluoroethylene;

wherein (b) is

26. (New) A welding wire, comprising:

a wire having a wire surface; and

a deposit on the wire surface,

wherein the deposit comprises

at least one lubricating particle, and

at least one compound selected from the group consisting of (a) saturated or unsaturated, linear or branched, carboxylic acid having from 5 to 12 carbon atoms;

and wherein the at least one lubricating particle comprises a material selected from the group consisting of molybdenum disulfide, tungsten disulfide, graphite carbon and polytetrafluoroethylene.

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BASIS FOR THE AMENDMENT

Claim 1 has been amended as supported at page 23, last paragraph.

New Claims 24-26 have been added. New Claim 24 is supported by Claims 1 and 3.

New Claim 25 is supported by Claims 1 and 22. New Claim 26 is supported by Claims 1 and 23.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1, 3, 4, 9, 10 and 12-26 will now be active in this application.